

Case | Office building, Athens, Greece

# MIXIT leads to maximum energy savings for historic refurbishment

Eco-friendly urban renewal with energy-saving Grundfos solutions

When a renowned historic office building in the heart of Athens needed refurbishment, energy-saving pumps were indispensable to achieving the project ambition of an eco-friendly workplace. When Grundfos suggested adding the MIXIT all-in-one mixing loop solution, the savings were even greater.

*From the upper floors of LADA3, the Acropolis is in full view.*

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[grundfos.com/mixit](https://grundfos.com/mixit)

**GRUNDFOS** 

Possibility in every drop



LADA3's newly-unveiled façade at 3 Christou Lada street, Athens, includes light shelves to maximise indoor sunlight and timber boxes concealing the heating and cooling units

The refurbishment of LADA3, a historic office building in the heart of Athens, was planned to “demonstrate how urban renewal can be sustainably achieved without compromising the city’s character or effacing its history.” Grundfos was approached as a supplier of the smart, energy-efficient pumps that would contribute to the energy savings planned for the eco-friendly building.

After seeing the plans, Grundfos engineers introduced the project team to the all-in-one MIXIT solution that could replace the originally planned 3-way valve cooling system. After close collaboration between all parties, MIXIT was installed, creating an even more energy-efficient system with full monitoring capabilities. The building will soon reopen with a ‘Very Good’ BREEAM classification.

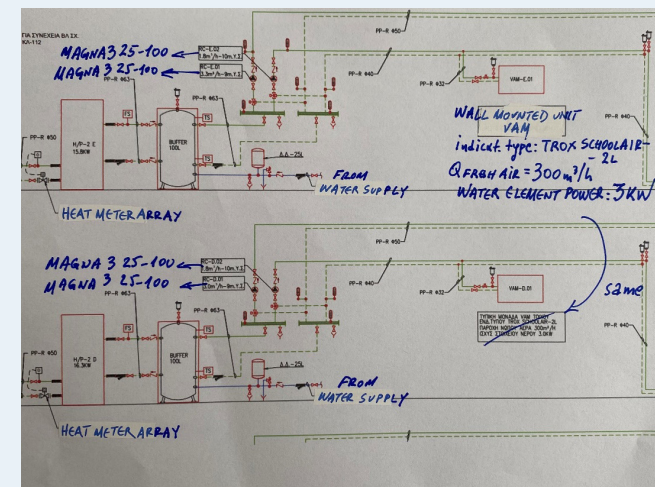
### The situation

An office building in the heart of Athens was well known to many Greeks as the headquarters of DOL (Lambrakis Press Group), one of the country’s most prominent media organisations and home of renowned newspapers Ta Nea and To Vima. First opened in the 1930s, the building followed the fortunes of its occupants, first through a series of expansions, before downsizing and finally standing empty since 2017.

Property developers ehret+klein Greece acquired the historic building and, in partnership with Parostec, a construction and

project management company, embarked on a renovation project to create an eco-friendly workplace that would “demonstrate how urban renewal can be sustainably achieved without compromising the city’s character or effacing its history.”

Guided by ehret+klein Greece’s commitment to lasting quality, innovation, and respect for local heritage, the so-called LADA3 project’s plan was to “design a healthy, enjoyable and sustainable workplace... that focuses on easy-to-maintain, low tech solutions that deliver the maximum impact in terms of energy savings and environmental quality.”



Application schematic for the primary/secondary circuit on each floor.



### The solution

The project team requested from Grundfos a quotation for pumps and circulators for the 9-storey building's cooling system. Sensing an opportunity, "I grabbed the bull by the horns and asked for application drawings," says Dimitris Psaltidis, Commercial Building Services (CBS) Sales Engineer, Grundfos Greece, "then concluded definitely that MIXIT units could be proposed."

Noting that the existing plans called for the installation of 3-way valves, using Grundfos MIXIT instead would take energy savings much further. Grundfos Greece's CBS team presented the all-in-one mixing loop concept at the offices of the Consulting Engineers, TEKEM S.A., with a full overview of the benefits, advantages and potential savings between a traditional 2- to 3-way system and the added value guaranteed by the unique, plug-and-play MIXIT solution.

MIXIT simplifies commissioning and balancing while making it faster, easier and more efficient as all components are automatically adjusted and balanced to the system demands, saving the investor up to 25% energy. Also, up to 12 traditional mixing loop components including valves, thermometers, heat meters and non-return valves are rendered obsolete thanks to MIXIT's all-in-one integrated concept.

Several meetings followed between the stakeholders (Local & Global Product Managers, Consultant, Project Manag-

er, Grundfos CBS Sales) to re-evaluate the project. Finally convinced of the high reliability, innovative design, energy efficiency and plug-and-play installation, Parostec gave Grundfos the go-ahead for the proposed MIXIT-based solution.



A TPE3 circulator powers the primary circuit.



The MIXIT and MAGNA3 combination is installed on the cooling system's secondary circuit on each of the nine floors.

**“Considering ehret+klein’s commitment to lasting quality, innovation, saving energy and respect for local heritage, we fully trusted Grundfos’ innovative proposal for MIXIT units as well as for TPE3/MAGNA3 smart pumps. This is a high added value solution by an expert in pumping systems. Like the ancient Greeks said: ‘Less is More!’”**

**Mr Margaritis Makris**, Project Manager  
Parostec Construction

In all, LADA3’s cooling system consists of a TPE3 in-line pump with IE5 motor for the RC primary circuit with 17 MAGNA3 smart circulator pumps for the secondary circuits. These supply the Lindner cooling ceiling, AHUs and the TROX Technik cooling elements. MIXIT units, 17 in total, were used for all positions except the primary circuit TPE pump which had no

need for a 3-way valve. 17 MIXIT CONNECT upgrade licences were also issued, enabling BMS communication through the BACnet protocol.

An essential aspect of the project design was enabling heat energy meter capability on each of the nine floors, so that

each floor could be sold to different owners upon the completion of the whole investment. The MIXIT Dynamic feature makes this possible, and further saves costs as no external heat energy meters need to be connected per pump or measurement position.



With the office furniture and cooling ceiling in place, LADA3 is soon ready to reopen.

**“Our engagement with the Consultant helped Grundfos highlight the advantages of our innovative MIXIT solution, creating a pull demand effect. We gained their approval, to the benefit of the investor. The partnership between ourselves and Mr Makris, the project manager, enabled us to have an honest, open, and mutually beneficial conversation till the end.”**

**Dimitris Psaltidis**, CBS Sales Engineer  
Grundfos Greece

#### **The outcome**

The MIXIT-based cooling system was successfully installed and, as part of LADA3’s low tech/high impact environmental design extending from construction to operation, has contributed to a ‘Very Good’ BREEAM Certification for the newly refurbished building.

The MAGNA3 pumps with permanent magnet motors combine outstanding efficiency (EEI <0.18), proven reliability, and easy installation in conjunction with innovative integrated technologies such as AUTOADAPT, FLOWLIMIT and FLOW-ADAPT.

Over a hundred data points from each pump are sent wirelessly to the MIXIT units and in turn to the BMS – a unique solution of seamless communication between pumps and controller from one supplier.

The entire project was a win-win for all concerned. The owner receives an added-value, highly efficient, innovative

solution in line with their sustainability ambitions, while for Grundfos, knowledge of the MIXIT solution has spread further within the commercial building community. Grundfos Greece has approached ConAP Consulting Engineers with designs and studies regarding the selection and specifications of potential MIXIT systems to be installed in upcoming projects, and ConAP’s Andreas Psaroudakis will join Grundfos on a visit to the LADA3 project to see the completed MIXIT installation in action.



A rooftop heliostat reflects sunlight down into the building’s innovative ‘kaleidoscope’ lightwell structure.

## Grundfos supplied

### 17 MIXIT units

3 x MIXIT 25-6.3 R NRV  
8 x MIXIT 25-10 R NRV  
6 x MIXIT 32-16 R NRV



*(all with MIXIT CONNECT licences)*

### 1 TPE3 primary pump

1 x TPE3 50-240



### 17 MAGNA3 secondary pumps

17 x MAGNA3  
25-60/80/100/120, 32-120



Seventeen MIXIT units are packaged, ready to be sent from Grundfos Greece warehouse to LADA3 project site

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**Grundfos Holding A/S**  
Poul Due Jensens Vej 7  
DK-8850 Bjerringbro  
Tel: +45 87 50 14 00  
[www.grundfos.com](http://www.grundfos.com)

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